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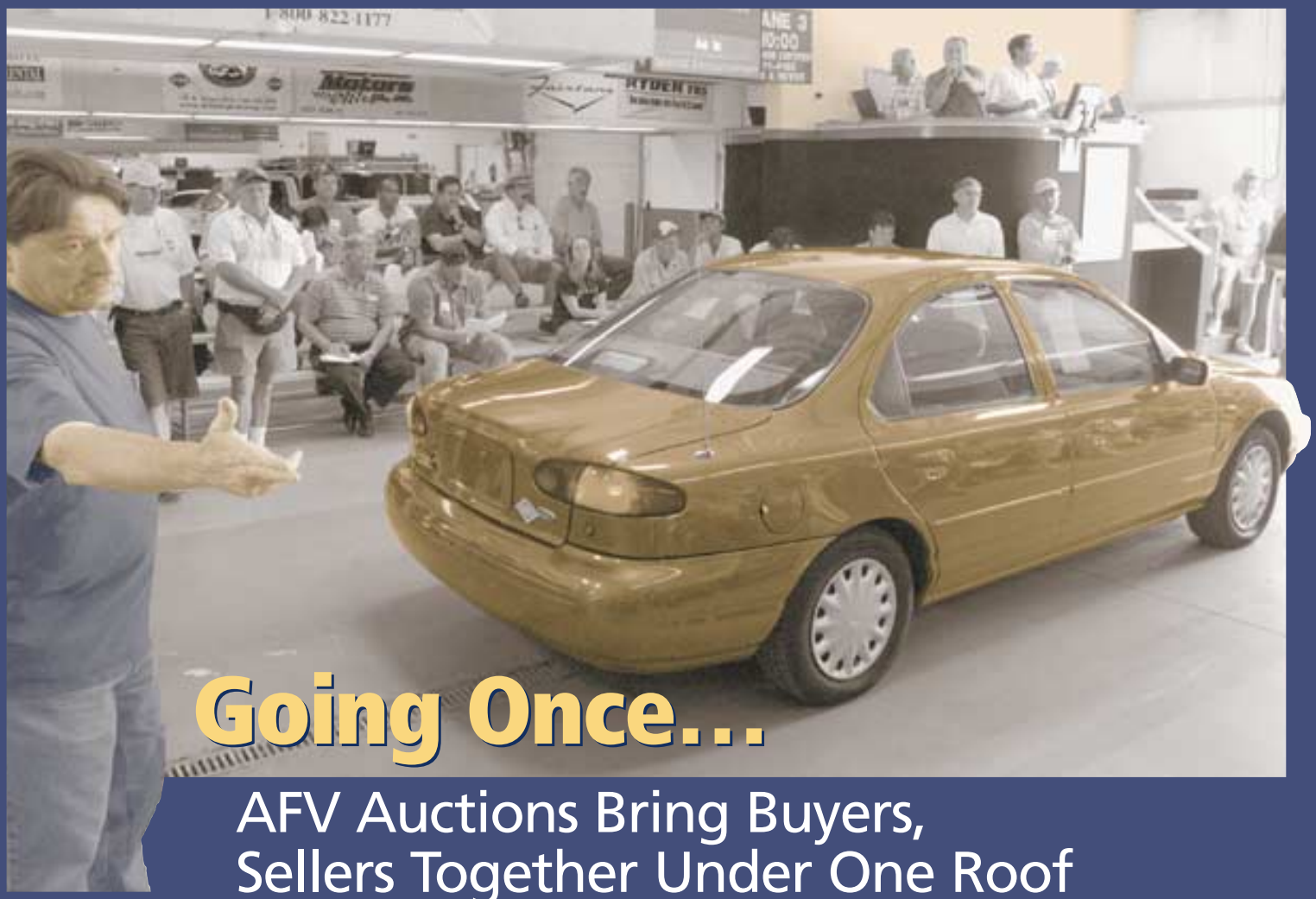
U.S. DEPARTMENT of ENERGY

ALTERNATIVE FUEL NEWS

An Official Publication of the Clean Cities Network and the Alternative Fuels Data Center
From the Office of Energy Efficiency and Renewable Energy



Going Once...

AFV Auctions Bring Buyers, Sellers Together Under One Roof

PLUS:

Community Groups Rally for AFVs

Ford's New CNG School Bus

INSIDE:

High Tech Goes Retro

Dear Readers,

Normally this space is devoted to my perspective and commentary about the features in the current issue. This time, however, we have chosen to publish the perspective of another Clean Cities leader and AFV advocate. I think when you read the article below, you will agree that the term "American Fuels" is much more appropriate terminology than "alternative fuels." I for one have a much greater sense of pride knowing that I drive an American Fuel Vehicle (AFV).

Shelley Launey
Clean Cities Program Director
U.S. Department of Energy

Why I No Longer Support Alternative Fuels and Alternative Fuel Vehicles

Darwin J. Burkhart

Yes, it is true. I have made a career out of alternative fuels and vehicles. I have developed and managed several alternative fuel programs and worked with local governments and businesses to implement alternative fuels. And after ten years of this, I can no longer promote them. In my opinion, it's time to dump alternative fuels!

Why the sudden change of mind? Have I given up? Am I suffering from burnout?

Hardly. I have just grown weary of how we market alternative fuels and the lingo that we use. Let me explain by using some examples and I think this will speak for itself.

- The principal recommends that your son attend an alternative school because it will be better for him.
- Your 18-year old daughter suddenly announces that she will no longer join the family at church on Sundays because someone has talked her into joining an alternative religious group.
- Your doctor tells you he can treat your ailment with conventional medicine or by using a new, alternative method… your choice.
- You say to the fleet manager "I think you should go with alternative fuels and vehicles; you'll like it much better than using conventional fuels."

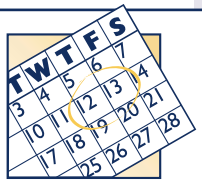
Sometimes, we can be our own worst enemy. In all of these examples, the word "alternative" conjures negative thoughts and feelings, or at least a lack of comfort. "Alternative" is often synonymous with experimental, unproven, and demonstration, and brings the guinea pig to mind. You won't find that in the dictionary, but that's how it is perceived. In fact, "alternative fuel" is the only example I can think of in which "alternative" means something positive. (But I'm biased.) It is amazing that "alternative fuels" and "alternative fuel vehicles" have made it this far, and with such success.

But these fuels and vehicles are no longer alternative—they are part of the mainstream. They are proven, reliable, safe, and successfully used. Sure, the numbers are relatively low, but momentum for their use continues to grow. Now is the time to shed the inferior label. Let's recognize them for what they are and give them due respect. Those of us in the business need to change the lingo. We need to find an alternative to "alternative."

It's all about marketing and perception. We can be better marketers of these fuels and vehicles just by calling them something different (but accurate). Why do more governments and businesses use ethanol, natural gas, propane, electricity, and biodiesel? Not because these fuels are "alternative," but because they are clean, green, renewable, and made in America. Therefore, the terms clean fuels, green fuels, renewable fuels, domestic fuels, and American fuels seem more appropriate. I use all of them interchangeably, and the responses from prospective fleets are much more positive than when I use the term "alternative fuels," which means nothing to them.

So what do we do with our favorite acronym, AFV? The "A" now stands for American. An AFV is an American Fuel Vehicle. We're all feeling more patriotic these days. Who wouldn't want to buy American Fuel Vehicles that run on one or more clean, green, renewable, domestic, American fuels? And, more importantly, what member of Congress or a state legislature wouldn't vote for American fuels and American Fuel Vehicles? The alternative would be perceived as "un-American."

Darwin Burkhart is the Chairman of the Chicago Area Clean Cities coalition and an advocate of American Fuel Vehicles (AFVs). He can be reached at 217-557-1441.



Upcoming Conferences and Events

Biodiesel Fuel Workshop
September 9–13, 2002
Loveland, Colorado
Contact: Solar Energy International
970-963-8855
www.solarenergy.org/biofuel.html

8th International and 20th National Conference and Exhibition of Natural Gas Vehicles
October 8–10, 2002
Washington, D.C.
Contact: NGVC
202-824-7360
www.ngvc.org

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PIX 11445

AFV growth is evident in GSA auction sales data. Last year the agency sold approximately 1,400 AFVs. More than 3,000 will be sold this year, at GSA auctions such as this one held on June 18 in Denver.

AFV Auctions Bring Buyers, Sellers Together

Success in maintaining an AFV fleet depends not only on the ability to purchase new vehicles economically, but also to sell used vehicles at fair prices. Resale value is a major issue affecting all fleet vehicles whether alternative-fueled or not.

Resale value is a top concern even for fleet operators who choose to lease—not buy—their AFVs. That's because a leased vehicle's residual value (the price of the used vehicle upon lease expiration) directly affects the size of monthly payments. Cars that retain more of their original value when resold tend to require lower monthly lease payments than those that don't.

Many fleet operators, both in business and government, replace their vehicles on regular schedules. The rapid turnover rate ensures a steady supply of used cars in general, including certain types of AFVs. So government agencies that must meet legal AFV acquisition mandates can often do so in the used car market, and save money.

Prevailing prices of used AFVs, especially dedicated-fuel models running on compressed natural gas (CNG) or propane, are important but not easily determined. According to a recent DOE-sponsored report on the AFV resale market, flexible-fuel vehicles (FFVs) that can run on gasoline or E85 ethanol fuel are rightfully priced in line with comparable gasoline-only cars. But it continues with the following point:

On the other hand, the current inventory of natural gas and propane vehicles available to the resale market comprises largely outdated aftermarket conversions that often have outlived their useful lives and have little resale value. It would therefore be inappropriate to compare and contrast the resale experiences of these conversions with the FFVs, or to draw any conclusions about their relative residual values.

Conclusions in the report, titled "Successes and Challenges in the Resale of Alternative Fuel Vehicles," are based on auction sales data, industry interviews, and focus group discussions. See related story, below.

According to the report, when AFVs are offered for sale, they are sometimes viewed with suspicion by private individuals. To people unfamiliar with the AFV industry, alternative fuels may connote poor performance or reliability. Reduced trunk space is a concern about some CNG vehicles. The appeal of AFVs can be further constrained by lack of local fuel or service.

Despite such obstacles, there is one arena where AFVs are bought and sold actively, by fleet operators, auto dealers, government officials, and even individuals. Vehicle auctions are conducted regularly by the U.S. General Services Administration (GSA). Last year, at more than 50 auctions sites nationwide, GSA sold approximately 35,000 used vehicles including 1,400 AFVs. This year it expects to sell approximately 3,160 AFVs, taking in more than $12 million in revenue.

GSA purchases 35,000–40,000 vehicles per year. "We buy directly from auto manufacturers, and we do negotiate favorable purchase prices," says GSA national remarketing coordinator Lander Allin. Vehicles sold at GSA auctions are competitive with those sold at private auctions, but not lower-priced, he said. More information on GSA auctions of AFVs is available at **www.autoauctions.gsa.gov/afv**.

AFV Auctions, Other Actions

"Successes and Challenges in the Resale of Alternative Fuel Vehicles" was produced by consulting firm eMobility International (formerly Dorfman & O'Neal) for the DOE Federal Fleets Program. The 34-page report is available at **www.afdc.doe.gov/pdfs/usedafv.pdf**.

Auctions are not the only way to stimulate used AFV sales, the report says. Recommendations include creating a system to track potential buyers and sellers and establishing a Web-based sales forum. Other ideas pertain to expanding manufacturer rebates and incentives, and restricting eligibility for use of high-occupancy vehicle (HOV) lanes to dedicated AFVs. Above all, it recommends a cultivating a closer working relationship between Clean Cities and GSA.

What is GSA?

Formed by federal legislation in 1949, GSA was assigned generally to improve administrative services of the federal government. In the early years, that included storing government records, disposing of war surplus, preparing the nation for emergencies, and many assorted functions no longer a part of the GSA mission.

Today, GSA provides policy leadership and expertly managed space, products, services, and solutions, at the best value, to enable federal employees to do their jobs. GSA manages federal assets valued at nearly $500 billion. Such assets include buildings, telecommunication and computer systems, and a fleet of approximately 185,000 vehicles. GSA employs more than 14,000 people.

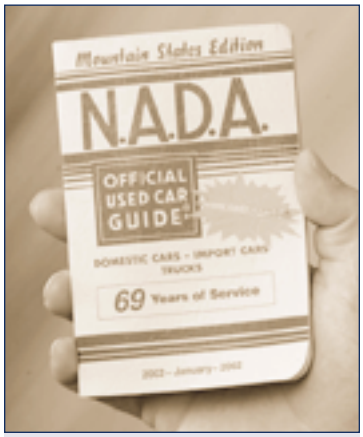
GSA is a catalyst for nearly $66 billion in federal spending—more than one fourth of the government's total procurement dollars. But only 1 percent of the agency's total budget comes through direct congressional appropriations. The majority of the GSA's operating costs must be recovered through the products and services provided.

CALIFORNIA CARS

California's Northwest Riverside County Clean Cities Coalition receives substantial support from the Western Riverside County Council of Governments, which influences air quality and transportation issues in the region. Coalition coordinator Ruthanne Taylor Berger is deputy director of the council, and Mike McCoy is a staff analyst with the organization.

When a GSA vehicle auction was announced in Riverside earlier this year, the Clean Cities coalition realized many AFVs would change hands. Coalition members sprang into action to publicize the event. They prepared a flyer generally describing AFVs to be sold, and emailed it to approximately 70 stakeholders including government fleet operators and potential corporate customers. A more targeted mailing was done later, followed by reminder phone calls a day before the event.

The auction was held on a Saturday, but turnout was impressive, said McCoy, who was among the attendees. More than 130 vehicles were sold, of which approximately 25 percent were AFVs, he estimates. Most of those were CNG-fueled sedans and vans, plus a handful of E85-fueled cars.



PIX 11446

Auction participants rely on car price guides like this one from the National Automobile Dealers Association.

Government agencies were the predominant players, both as buyers and sellers, said McCoy. "A lot of AFV users in California are reaching their second or third generation of vehicles, so there is a substantial supply," he said. Many fleet operators were interested in acquiring used vehicles to help meet city, state, and air district mandates, as well as federal mandates created by the Energy Policy Act of 1992 (EPAct).

"What's most encouraging is that the AFVs held their own in terms of appeal and value," said McCoy. Most of the auction's CNG sedans sold at 85-90 percent of fair wholesale value for a comparable gasoline vehicle. Wholesale prices are not published specifically for AFVs, because of their low overall volume. Conventionally fueled used car prices can be found in many published in guides such as the Black Book, from Hearst Business Media, and in a similar guidebook from National Automobile Dealers Association.

Ford

Misplaced skepticism about alternative fuels can be a boon for used car buyers. Case in point is the Ford Contour sedan, found in abundance at GSA auctions. Black Book wholesale value for a 1998 Contour LX, for example, was $4,750 in May of this year. But many 1998 bi-fuel CNG Contours were selling at auction for approximately $4,000 at that time.

In addition to energy and environmental attributes, another reason cited by Riverside buyers for their interest in AFVs is access to high-occupancy vehicle (HOV) highway lanes. AFV drivers in California have long used HOV lanes. Several states including Utah have followed suit.

The auctioneers announced and welcomed the presence of Clean Cities stakeholders at the start of the event. A natural gas supplier representative was on hand to answer questions about CNG. Many of the barriers to public AFV sales, such as false perceptions about performance or reliability, were effectively eliminated.

The Riverside auction was conducted professionally, without creating the anxiety, as some auto auctions do, that casual buyers might be at a disadvantage, said McCoy. "I would definitely recommend this as a way for other coalitions to promote the AFV market," he said.

DENVER DEALS

GSA auctions are held regularly at Denver Auto Auction, a 100-acre facility located just east of Denver in Aurora, Colorado. Owned and operated by Manheim Auctions, the facility runs auctions not only for GSA but for many automakers and rental car companies. Manheim Auctions is part of Atlanta-based Cox Communications.

A GSA auction in Denver on June 18 attracted a crowd of roughly 200 people including private individuals, used car dealer representatives, and government agency officials. Typically 60 percent of the crowd is individuals, who buy 40 percent of the cars, according to GSA's Colorado fleet manager, Mike Steffan. More than half of all sales at the Denver auction went to the six biggest buyers, apparently dealers. Unlike most other auto auctions, GSA auctions are open to the public, as required by law.

"We need participation from both the public and the dealers," said Steffan. "Without competition from individual buyers, the dealers can really beat us up with low bids."

Some 122 vehicles were offered for sale at the Denver auction, and all but five were sold. Sales included 19 bi-fuel CNG cars, most of which were Ford Contours formerly driven by employees of GSA, DOE, the U.S. Army, and the Department of Interior. Also sold were one dedicated-fuel CNG minivan, and 10 flex-fuel E85 vehicles including Dodge Caravan minivans and Ford Taurus sedans. Three quarters of all sales were gasoline vehicles including many Ford Broncos, Jeep Cherokees, and Plymouth Breeze sedans.

PIX 11447

A fast-paced process at Denver Auto Auction yielded 117 vehicle sales in barely two hours.

The vehicles were available for viewing on two separate days prior to the auction day, and for three hours on the day of the event. Potential buyers could kick the tires, open the hoods, and start the engines, but were not allowed to drive the cars. Available before the auction, both in print and on the Web, was a listing of all vehicles including the make and model, model year, and VIN number. Available after the auction on request was a listing of vehicles sold and their sale prices.

The event's pace was very fast. As each vehicle pulled up in the center lane, sandwiched by bleachers on both sides, an auctioneer began soliciting bids at a pre-determined price. Usually the bidding escalated quickly, initially involving five or six bidders, then two or three, and finally one. Most vehicles were gone in less than one minute. Sale prices ranged from $1,000 for a 1992 Dodge pickup to $17,000 for a late model Ford Excursion.

The Denver auction house uses a laptop computer to track the day's sales revenue as a percent of fair market value figures listed in the Black Book. At one point Steffan lamented that the day's prices were tracking at only 92 percent of fair market value. One reason was that certain large buyers weren't present, opting to attend a Salt Lake City auction on the same day, he said. By day's end, however, the ratio of revenue to fair value improved to a more typical 98 percent.

Buying by the Block

States are the only entities with which GSA routinely engages in "fixed-price" sales. Blocks of vehicles, ranging from a few cars to a few hundred, are frequently sold to individual states. Often the buyer is the state department charged with managing surplus property such as cars and computers in a role like that of GSA at the federal level. Representatives of those state entities can (and often do) sell the vehicles to cities, counties, and other agencies within their own states.

PIX 05716

Fleets regulated by EPAct usually opt for new vehicles, but they can meet their AFV acquisition requirements just as well with used vehicles. State governments are the third largest group of GSA used vehicle buyers, after auto dealers and private individuals.

Where Alternative Fuel is King

In Rural Central Ohio, Entrepreneur Clayton King Made AFVs His Business

Clayton King does not profess to be an AFV hero—he's simply a small business owner in rural Ohio. But although he shies from the spotlight, King's Royalty Enterprises exemplifies the "can-do" spirit of a clean fuel entrepreneur and has put Coshocton County, Ohio, on the alternative fuels map.

King first learned about natural gas vehicles while working in Ohio's oil and gas fields in the early 1980s. Years later he bought a farm equipped with natural gas wells and decided to run his own vehicles on the fuel pumped, literally, from his own backyard. He bought a used compressor and other equipment from a local utility, and Royalty Enterprises' CNG business was born. His first compressed natural gas (CNG) refueling station opened in September 2000 in Coshocton, Ohio. A second station was opened in nearby West Bedford in March of this year. Drivers use a card reader to access each pump. Although his facilities use smaller compressors and have less storage than the multi-million dollar super stations, King has issued 52 fuel cards in less than two years. He now sells an average of 2,400 gasoline gallons equivalent of CNG per month.

But as any Clean Cities stakeholder knows, a healthy AFV market requires vehicles as well as a fueling infrastructure. "I decided that if I was going to do this, I'd do it all," says King. He decided to enter the vehicle business as well. Under the umbrella of CNG Auto Sales, a partner company now owned by his brother-in-law, King travels the eastern United States and buys used AFVs at auctions. His transportation is a CNG-fueled truck. News about used vehicle sales travels via the Internet and by word of mouth, says King, who frequents both utility auctions and those run by the U.S. General Services Administration (GSA).

PIX 11449

Clayton King (left) was welcomed as a stakeholder at the Central Ohio Clean Fuels Coalition designation ceremony on April 12, 2002. Presenting the honor was Michael B. Coleman, mayor Columbus, Ohio.

King buys bi-fuel and dedicated-fuel sedans, passenger vans, and pickup trucks—usually well below prevailing wholesale prices. CNG Auto Sales can then offer the vehicles to customers in Central Ohio at a discount as well, often below conventional vehicle prices. This significant cost savings has caught the attention of individuals and fleets alike. "About 50% of the people who buy from us are individuals looking for a personal vehicle," says King.

PIX 11448

The April ceremony gave Royalty Enterprises staff an opportunity to display a GMC Astro truck platform that they converted to CNG power. From left, Chris King, Clayton King, Chris Rinehart, and Mitch King.

"They like the fact that they can pay less for their car up front, and still save money with cheaper fuel and maintenance over a lifetime of use."

Like the auctions he attends, CNG Auto Sales markets its vehicles mostly by word of mouth. Local fleet customers include heating and cooling companies, construction companies, and even several small, one-vehicle transportation companies that cater specifically to central Ohio's Amish community. Although they don't personally drive or own vehicles, the Amish do travel via buses and vans.

As in any business, it's important to make sure customers are happy. That's why in addition to selling AFVs and alternative fuel, Royalty Enterprises also services the vehicles it sells to its customers. "Dependability is a big factor," says King. "We sell the fuel, sell the cars, and fix the cars—the complete package. If something breaks we're on it immediately, and no matter what, we'll find a way for drivers to get the fuel they need." Customers needing assistance when refueling can choose from five phone numbers listed at each pump to reach a technician for assistance.

CNG Auto Sales now has more than 20 used AFVs on its lot, and King has enough refueling equipment for as many as five more stations. This fall, the Royalty Enterprises refueling network will grow to three, with a station scheduled to open in Newark, Ohio. *For more information about Royalty Enterprises, please call CNG Auto Sales at 740-623-2185 or Sam Spofforth of the Central Ohio Clean Fuels Coalition at 614-292-5435.*

Students Rise to the FutureTruck Challenge

Courtesy Ford Motor Company

Teams from 15 top universities competed in FutureTruck 2002, starting at the Ford Proving Grounds in Yucca, Arizona.

FutureTruck, a unique four-year program sponsored by the U.S. Department of Energy, brings together the resources of industry, government, and academia to address the important environmental and energy-related issues posed by the growing demand for sport utility vehicles (SUVs). FutureTruck 2002, co-sponsored by Ford Motor Company, challenged teams from 15 top North American universities to re-engineer a Ford Explorer into a lower-emissions vehicle with at least 25 percent higher fuel economy—without sacrificing performance, utility, safety, and affordability.

Courtesy Ford Motor Company

Wisconsin's winning entry featured biodiesel hybrid-electric technology, with 45 percent better fuel economy than a stock Ford Explorer.

To meet this challenge, all of the teams implemented a hybrid electric vehicle (HEV) design strategy, as well as other innovative approaches, to increase the efficiency and decrease the overall environmental impact of their SUVs. Eight vehicle engines used E85, three used biodiesel, one used ultra-low sulfur diesel, one used reformulated gasoline, and two were powered by hydrogen fuel cells. Additional technical goals for the competition included reduction of total greenhouse gasses and the promise of emerging exhaust gas treatment technologies to further reduce tailpipe emissions.

After working on their vehicles all year, the teams came to 10 days of intense testing and performance events held June 11–21 at Ford's Arizona Proving Ground in Yucca, Arizona and various locations in the Los Angles, California area, including emissions testing at the California Air Resources Board and events at the California Motor Speedway.

The results of the competition were impressive. Seven out of 11 teams tested achieved higher fuel economy than the stock 2002 Explorer in an on-road fuel economy test in over 100 degree temperatures. The University of Wisconsin vehicle got 22 miles per gallon, 45 percent higher than the stock Ford Explorer in the same test. Three of the teams, Michigan Technological University, University of Idaho, and Georgia Institute of Technology, reached California ultra low emission vehicle emission levels, one of the toughest vehicle emission standards in the world. At the same time, many of the competition vehicles met or exceeded the performance of the stock Explorer in events such as acceleration, braking, handling, and off-road performance.

The winners were announced at an awards ceremony at the Beverly Wilshire Hotel in Beverly Hills, California. Third place went to the University of California, Davis; Michigan Technological University took second place; and the University of Wisconsin won the competition. Other competitors included California Polytechnic State University-San Luis Obispo, Cornell University, Georgia Institute of Technology, Ohio State University, Pennsylvania State University, Texas Tech University, University of Alberta, University of Idaho, University of Maryland, University of Tennessee-Knoxville, Virginia Tech, and West Virginia University. Additional information about the FutureTruck 2002 and full competition results are available on the Web at **www.futuretruck.org**.

Courtesy Ford Motor Company

The event concluded at the California Motor Speedway in Fontana, California. Vehicles were evaluated in terms of safety, performance, consumer acceptability, and design.